

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/000970

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: B63H 3/04, 20/14, F16H 25/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI IPC : B63H (all), B64C 11/(all) with keywords (propeller, pitch, adjust, push, lock, surface, incline)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SU 716906 A (DUBINSKII ET AL.) 25 February 1980	
A	US 5967753 A (MULLER) 19 October 1999	
A	US 4643643 A (OTTO) 17 February	
A	US 3912417 A (HERBERT) 14 October 1975	

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
31 August 2004

Date of mailing of the international search report

13 SEP 2004

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## INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2981338 A (T. HINDMARCH) 25 April 1961	

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**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:  
See the Extra sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:  
1-12 and 43-50
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

**Supplemental Box**

(To be used when the space in any of Boxes I to VIII is not sufficient)

**Continuation of Box No: III**

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1-12 are directed to a marine propulsion system wherein rotating a screw threaded nut moves a push member which in turn moves a propeller blade coupling mechanism therefore adjusting the blade's pitch. It is considered that the underlined features comprise a first "special technical feature".
2. Claims 13-26 are directed to a marine propulsion system comprising emergency pitch adjuster (comprising a number of features) setting a propeller blade's pitch to a predetermined position in the event of a control mechanism breakdown. It is considered that said emergency pitch adjuster comprises a second "special technical feature".
3. Claims 27-42 are directed to a stern drive comprising a driver for rotating a control shaft via twin gears set interconnected via a flexible drive element to adjust a propeller blade's pitch. It is considered that the underlined features comprise a third "special technical feature".
4. Claims 43-50 are directed to a propeller comprising a propeller blade's pitch adjusting mechanism rotating the blade's base and the base unlocking/locking mechanism. It is considered that said unlocking/locking mechanism comprises a fourth "special technical feature".
5. Claims 51-66 are directed to a marine propulsion system comprising a blade supporting mechanism comprising an eccentric in engagement with a pin and blade's biasing element for biasing the eccentric and the pin to an equilibrium position wherein a pitch adjusting mechanism adjust the blade's pitch via the eccentric whereupon the biasing element locks the blades in the adjusted position. It is considered that said blade supporting mechanism comprises a fifth "special technical feature".

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2004/000970

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
SU	716906				
US	5967753	EP	0990585		
US	4643643	DE	3417853	GB	2158887
		NL	8501384	SE	8502372
US	3912417			JP	60255598
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					
END OF ANNEX					